



Substitute for Form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Page 1 of 4

Application No.	09/837,307
Filed	4/17/2001
First Inventor	Garrett, Jr., Billy
Art Unit	2187-2189
Examiner	Dinh, Ngoc V.
Atty. Docket No.	RBS2.P031

U.S. Patent Documents					
Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
M	2001/0037428	A1	Hsu et al.	Nov., 2001	
	2003/0052885	A1	Hampel et al.	Mar., 2003	
	20040019756	A1	Perego et al.	1/29/2004	
	4670745		O'Malley et al.	Jun., 1987	
	4766538		Miyoshi	8/23/1988	
	4768157		Chauvel et al.	Aug., 1988	
	4837465		Rubinstein	Jun., 1989	
	4985867		Ishii et al.	1/15/1991	
	5146592		Pfeiffer et al.	Sep., 1992	
	5394528		Kobayashi et al.	2/28/1995	
	5530814		Wong et al.	6/25/1996	
	5546346		Agata et al.	Aug., 1996	
	5559970		Sharma	9/24/1996	
	5614855		Lee et al.	3/25/1997	
	5652870		Yamasaki et al.	7/29/1997	
	5655113		Leung et al.	8/5/1997	
	5717871		Hsieh et al.	2/10/1998	
	5717901		Sung et al.	2/10/1998	
	5748561		Hotta	May., 1998	
	5751657		Hotta	May., 1998	
	5787267		Leung et al.	7/28/1998	
	5793998		Copeland et al.	8/11/1998	
	5801985		Roohparvar et al.	9/1/1998	
N	5852725		Yen	12/22/1998	

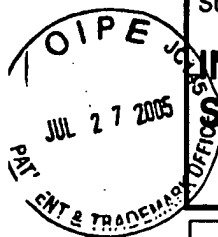
RECEIVED

AUG 01 2005

Technology Center 2100

Examiner Signature		Date Considered	12/13/07
-------------------------------	--	----------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Page 2 of 4

Application No.	09/837,307
Filed	4/17/2001
First Inventor	Garrett, Jr., Billy
Art Unit	2487 2189
Examiner	Dinh, Ngoc V.
Atty. Docket No.	RBS2.P031

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
ND	5893927		Hovis	4/13/1999	
	5936885		Morita et al.	Aug., 1999	
	5958033		Schubert et al.	9/28/1999	
	6034878		Osaka et al.	3/7/2000	
	6047347		Hansen et al.	4/4/2000	
	6125157		Donnelly et al.	9/26/2000	
	6138185		Nelson et al.	10/24/2000	
	6141273		Ku et al.	10/31/2000	
	6144220		Young	11/7/2000	
	6247084		Apostol et al.	Jun., 2001	
	6311313		Camporese et al.	10/30/2001	
	6366995		Vilkov et al.	Apr., 2002	
	6393543		Vilkov et al.	May., 2002	
	6625687		Halbert et al.	9/23/2003	
	6754120		Bellows et al.	Jun., 2004	
	6825841		Hampel et al.	Nov., 2004	
ND	RE37409		Barth et al.	Oct., 2001	

RECEIVED**AUG 01 2005**

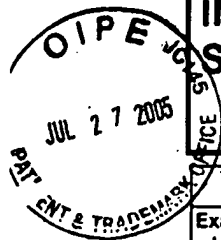
Technology Center 2100

Foreign Patent Documents

Examiner Initials*	Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines	Trans- lation
	Number	Kind				
ND	EP0887737	B1		1/22/2003		
ND	GB2367400	A		4/3/2002		

Examiner Signature		Date Considered	12/03/07
-------------------------------	--	----------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 3 of 4	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187-2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031

Non Patent Literature Documents

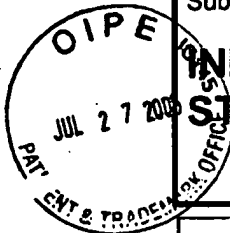
Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Trans- lation
ND	C. Yoo et al., "A 1.8V 700 Mb/s/pin 512Mb DDR-II SDRAM with On-Die Termination and Off-Chip Driver Calibration, IEEE International Solid-State Circuits Conference ISSCC 2003/Session 17/SRAM and DRAM/ Paper 17.7, pp. 312-313 and 496, plus Visuals Supplement on pp. 250-251 and 535	
ND	Fairchild Semiconductor, "Design Optimization Techniques for Double Data Rate SDRAM Modules," Jul. 2000. 6 pages.	
	IEEE 100, "The Authoritative Dictionary of IEEE Standards Terms", Seventh Edition. Critical piece first to Cross bar switch (page 252).	
ND	Kirihata et al., "A 390-mm ² , 16-Bank, 1-Gb DDR SDRAM with Hybrid Bitline Architecture", IEEE Journal of Solid-State Circuits, Vol. 34, No. 11, November 1999; pages 1580-1588	
ND	Masumoto, "Configurable On-Chip RAM Incorporated Into High Speed Logic Array", Proceedings of the IEEE 1985 Custom Integrated Circuits Conference, May 20-23, 1985; pages 240-243.	
ND	Micron Technology, Inc., "Graphics DDR3 DRAM MT44H8M32- 2 Meg x 32 x 4 Banks," Advance Data Sheet, Copyright 2003, pp. 1-67	
ND	Micron Technology, Inc., "Micron Synchronous DRAM 128Mb:x32 SDRAM," pp. 1-52, Rev. 9/00.	
ND	Minutes of Meeting No. 70, JC-42.3 Committee on RAM Memories, March 9, 1994, Orlando, Florida, 72 pages (see, in particular, page 62).	
	NVIDIA Corporation, "GeForce3: Lightspeed Memory Architecture," NVIDIA Corporation Technical Brief, pp. 1-9, date unknown.	

RECEIVED
AUG 01 2005

Technology Center 21

Examiner Signature		Date Considered	12/03/07
-------------------------------	--	----------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 4 of 4	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187 2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031

Non Patent Literature Documents		
Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Translation
MP	S. Takase and N.i Kushiya, "WP 24.1 A 1.6GB/s DRAM with Flexible Mapping Redundancy Technique and Additional Refresh Scheme," IEEE Journal of Solid State Circuits, Vol. 34, No. 11, November 1999, pp. 1600-1606	
	S. Takase and N.i Kushiya, "WP 24.1 A 1.6GB/s DRAM with Flexible Mapping Redundancy Technique and Additional Refresh Scheme," IEEE International Solid-State Circuits Conference, 4 pages plus ISSCC Slide Supplement pp. 348-349 and 506-507	
	Samsung Electronics, "SDRAM Device Operations," 41 pages, date unknown.	
MP	Satoh et al., "A 209K-Transistor ECL Gate Array with RAM", IEEE Journal of Solid-State Circuits, Vol. 24, No. 5, October 1989; pages 1275-1281.	
ND	Zhao et al., "An 18 Mb, 12.3 GB/s CMOS Pipeline-Burst Cache SRAM with 1.54 Gb/s/pin", IEEE International Solid-State Circuits Conference, 1999; 10 pages.	

RECEIVED

AUG 01 2005

Technology Center 2100

Examiner Signature		Date Considered	12/03/07
---------------------------	--	------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 1 of 1	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187 2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031

Technology Center 2101

JAN 30 2005

RECEIVED

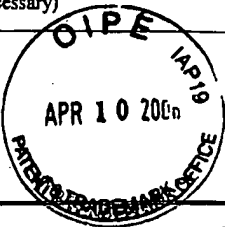
U.S. Patent Documents					
Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
ND	2003/174573	A1	Suzuki et al.	9/18/2003	
ND	4,636,982		Takemae et al.	1/13/1987	
ND	5,222,047		Matsuda et al.	6/22/1993	

Foreign Patent Documents						
Examiner Initials*	Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines	Trans- lation
	Number	Kind				
ND	EP 1248267A			10/9/2002		

Non Patent Literature Documents		
Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Trans- lation
ND	International Search Report and Written Opinion of the International Searching Authority in International Application PCT/US2005/028728, World Intellectual Property Organization, January 4, 2006	


Examiner Signature		Date Considered	12/03/07
-------------------------------	--	----------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)				Attorney Docket No.: RBS2.P031		Application Number: 09/837,307	
				First Named Inventor: Billy Garrett, Jr.			
				Filing Date: April 17, 2001		Group: 3487 2189 Technology Center 2100	
RECEIVED APR 13 2006							
U.S. PATENT DOCUMENTS							
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Number	Kind Code ² (If known)				
ND		2004/0120197	A1	Kondo et al.	06-24-2004		
ND		5,933,387		Worley	08-03-1999		
ND		6,240,039	B1	Lee et al.	05-29-2001		

FOREIGN PATENT DOCUMENTS								
Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (If known)				
ND		WO	91/16680	A1	Rambus, Inc.	10/31/1991		


NON PATENT LITERATURE DOCUMENTS			
Exam. Initial*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁷
ND		International Search Report and Written Opinion of the International Searching Authority in International Application PCT/US2005/032770, World Intellectual Property Organization, January 26, 2006, 12 pgs.	

Examiner Signature		Date Considered	12/03/07
---------------------------	---	------------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 1 of 5	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187 2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031

U.S. Patent Documents					
Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
MD	2004/0120197		Kondo et al.	6/24/2004	
	4,377,855		Lavi	3/22/1983	
	4,542,483		Procyk	9/17/1985	
	4,569,036		Fuji et al.	2/4/1986	
	4,646,268		Kuno	2/24/1987	
	4,698,788		Flannagan et al.	10/6/1987	
	4,700,328		Burghard	10/13/0987	
	4,710,902		Pelley III et al.	12/1/1987	
	4,740,921		Lewandowski et al.	4/26/1988	
	4,758,993		Takamae	7/19/1988	
	4,787,858		Killian Jr.	11/29/1988	
	4,796,230		Young	1/3/1989	
	4,800,525		Shah et al.	1/24/1989	
	4,811,302		Koishi	3/7/1989	
	4,825,413		Tran	4/25/1989	
	4,837,743		Chiu et al.	6/6/1989	
	4,843,264		Galbraith	6/27/1989	
	4,862,421		Tran	8/29/1989	
	4,888,732		Inoue et al.	12/19/1989	
	4,903,344		Inoue et al.	2/20/1990	
	4,961,168		Tran	10/2/1990	
	4,982,370		Matsumoto et al.	1/1/1991	
	4,984,196		Tran et al.	1/8/1991	
MD	4,991,141		Tran	2/5/1991	

Examiner Signature		Date Considered	12/03/07
-------------------------------	---	----------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 2 of 5	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187-2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031

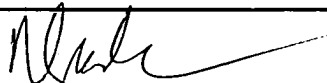
U.S. Patent Documents					
Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
M	5,046,050		Kertis	9/3/1991	
	5,093,806		Tran	3/3/1992	
	5,111,434		Cho	5/5/1992	
	5,119,340		Slemmer	6/2/1992	
	5,121,358		Slemmer et al.	6/9/1992	
	5,124,610		Conley et al.	6/23/1992	
	5,124,951		Slemmer	6/23/1992	
	5,128,897		McClure	7/7/1992	
	5,132,931		Koker	7/21/1992	
	5,150,330		Hag	9/22/1992	
	5,181,205		Kertis	1/19/1993	
	5,193,072		Frenkil et al.	3/9/1993	
	5,193,074		Anami	3/9/1993	
	5,214,610		Houston	5/25/1993	
	5,241,503		Cheng	8/31/1993	
	5,249,165		Toda	9/28/1993	
	5,251,178		Childers	10/5/1993	
	5,263,002		Suzuki et al.	11/16/1993	
	5,267,215		Tsujimoto	11/30/1993	
	5,274,596		Watanabe	12/28/1993	
	5,291,444		Scott et al.	3/1/1994	
	5,301,162		Shimizu	4/5/1994	
✓	5,305,280		Hayano	4/19/1994	
MD	5,321,646		Tomishima	6/14/1994	

Examiner Signature		Date Considered	12/03/07
---------------------------	---	------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 3 of 5	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187-2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031


U.S. Patent Documents					
Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
ND	5,337,283		Ishikawa	8/9/1994	
	5,343,438		Choi et al.	8/30/1994	
	5,383,159		Kubota	1/17/1995	
	5,390,308		Ware et al.	2/14/1995	
	5,406,526		Sugibayashi et al.	4/11/1995	
	5,414,662		Foss et al.	5/9/1995	
	5,418,737		Tran	5/23/1995	
	5,428,389		Ito et al.	6/27/1995	
	5,455,802		McClure	10/3/1995	
	5,471,425		Yumitori et al.	11/28/1995	
	5,485,430		McClure	1/16/1996	
	5,517,456		Chrishiki	5/14/1996	
	5,587,960		Ferris	12/24/1996	
	5,903,509		Ryan et al.	5/1/1999	
	6,034,878		Osaka et al.	3/7/2000	
ND	6,075,728		Inoue et al	6/13/2000	

Examiner Signature		Date Considered	12/03/07
-------------------------------	---	----------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 4 of 5	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031


Non Patent Literature Documents		
Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Translation
ND	AIMOTO et al., "SP23.3: a 7168GIPS 3.84GB/s 1W Parallel Image-Processing RAM Integrating a 16Mb DRAM and 128 Processors," ISSCC, Feb. 1996, pp. 372-373/476.	
ND	F. Ware, "Direct RDRAM 256/288-Mbit (512Kx16/18x32s)" Rambus, Preliminary Information, Document DL0060 Version0.9, August 1999, pp. 1-66.	
ND	GIACALONE et al., "SP23.2: A 1MB 100MHz Integrated L2 Cache Memory with 128b Interface and ECC Protection," ISSCC, Feb. 1996, pp. 370-371/475.	
ND	HIROSE, et al., "A 20-ns 4-Mb COMOS SRAM with Hierarchical Word Decoding Architecture," IEEE, Oct. 1990, pp 1068-1072. Vol. 25, No. 5.	
ND	JEDEC, "Minutes of Meeting No. 71, JC-42.3 Committee on RAM Memories, including Proposal to Add Number of Banks Option to the Mode Register for 64M SDRAM," Joint Electron Device Engineering Council (JEDEC), 5/25/1994, New York, NY, pp. 1-14 plus 2-pg. Attachment T	
ND	KIOKE et al., "SP23.1: A 60-ns 1Mb Nonvolatile Ferroelectric Memory with Non-Driven Cell Plate Line Write/Read Scheme," ISSCC, Feb. 1996, pp. 368-379/475.	
ND	KONISHI et al., "Session SVIII: Static RAMs - FAM18.6: A 64Kb COMOS RAM," ISSCC, Feb. 1982, pp. 258-259/333.	
ND	Micron Graphics DDR3 DRAM. Advance 256Mb: x 32 GDRA3 DRAM. © 2003 Micron Technology, Inc., pages 1-67.	
ND	NAKAMURA et al., "FA14.2: A 29ns 64Mb DRAM with Hierarchical Array Architecture," ISSCC, Feb. 1995, pp. 246-247/373.	

Examiner Signature		Date Considered	12/03/07
---------------------------	---	------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Page 5 of 5	Application No.	09/837,307
	Filed	4/17/2001
	First Inventor	Garrett, Jr., Billy
	Art Unit	2187 2189
	Examiner	Dinh, Ngoc V.
	Atty. Docket No.	RBS2.P031

Non Patent Literature Documents		
Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Translation
NA	NITTA et al., "SP23.5: A 1.6FB/s Data-Rate 1Gb Synchronous DRAM w/Hierarchical Square-Shaped Memory Block & Distributed Bank Architecture," ISSCC, Feb. 1996, pp 376-377/477.	
ND	SAEKI et al., "SP23.4: A 2.5ns Clock Access 250MHz 256Mb SDRAM with a Synchronous Mirror Delay," ISSCC, Feb. 1996, pp. 374-375/476.	
NP	SAKATA et al., "Two-Dimensional Power-Line Selection Scheme for Low Subthreshold-Current Multi-Gigabit DRAM's," IEEE, Aug. 1994, pp. 887-894, Vol. 29, No. 8.	
NA	SUGIBAYASHI et al., "WP3.5: A 30ns 256Mb DRAM with Multi-Divided Array Structure," ISSCC, Feb. 1993, pp. 50-51/262.	
ND	SUGIBAYASHI et al., "A 30-ns 256Mb DRAM with a Multidivided Array Structure," IEEE, Nov. 1993, pp. 1092-1098, Vol. 28 No. 11.	
ND	YAMASHITA et al., "FA15.2: A 3.84GIPS Integrated Memory Array Processor LSI with 64 Processing Elements and 3Mb SRAM," ISSCC, Feb. 1994, pp. 260-261/349.	
ND	YOO et al., "17.7: A 1.8V 700Mb/s/pin 512Mb DDR-II SCRAM with On-Die Termination and Off-Chip Driver Calibration," ISSCC, Feb. 2003, pp. 312-313/495/250-251.	
ND	YOO et al., "FA14.4: A 150MHz 8-Banks 256M Synchronous DRAM with Wave Pipelinin Methods," ISSCC, Feb. 1995, pp. 250-251/374.	
ND	YOO et al., "SP23.6: A 32-Bank 1Gb DRAM with 1GB/s Bandwidth," ISSCC, Feb. 1996, pp. 378-379/477.	

Examiner Signature		Date Considered	12/03/07
---------------------------	---	------------------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.